

THE MYSTERIES OF HEMI-SYNC® BEYOND BRAIN ENTRAINMENT

by Mohammad Sadigh, Ph.D.

Micah Sadigh is director of psychology and psychophysiological services at The Gateway Institute, a center for pain and stress management in Bethlehem, Pennsylvania. He practices psychotherapy and biofeedback and is in charge of the center's neuropsychological laboratory. Computer-assisted brain mapping is his primary area of research. Here, Dr. Sadigh highlights the results of his ongoing independent research with Hemi-Sync.

The phenomenon of bilateral hemispheric synchronization first appeared in studies of advanced meditators approximately thirty years ago. Transcendental meditators, especially, appeared to be able to achieve cortical synchrony after years of practice. However, the frequency at which such synchrony took place was beyond the control of the meditator. Most meditators tend to achieve bilateral synchrony only within a certain uncontrollable frequency range (usually low alpha).

Theoretically, when the two hemispheres function in unison and in synchrony a variety of beneficial effects, both physical and psychological, may ensue. That is why, during the past several years, a number of researchers, clinicians, and entrepreneurs have attempted to develop ways of inducing whole-brain synchrony. Since transcendental meditation takes quite some time to accomplish, and there are no guarantees that it will work, and because the meditation effect appears to be limited to a specific frequency band, more and more people are trying to combine the new and old technologies to attain hemispheric synchrony.

After experimenting with a wide variety of technologies, ranging from visual to audio to transcranial electrical stimulation, I came to believe that perhaps TM was the only way of inducing full-brain synchrony because the only synchronized brain I had seen was that of an adept meditator.

After attending the GATEWAY VOYAGE® I began to conduct a series of studies to determine if Hemi-Sync was an effective way of achieving hemispheric synchrony. The first Focus 10 study, conducted at The Gateway Institute's neuropsychological laboratory, provided me with the initial proof that Hemi-Sync does work. Hemi-Sync entrained the brain of a subject to achieve and maintain a full state of hemispheric synchrony within the theta range. Research shows that as meditation subjects move toward the theta stage, they tend to either fall asleep or rapidly move toward higher frequencies. The Hemi-Sync signal appears to help overcome such tendencies.

During the second and third studies, a subject listened to Focus 12 tapes. The results of both studies showed significant bilateral synchronization in the beta range. Also, at the end of the third study, and at the end of the Hemi-Sync introduction, the subject was asked to “open the Access Channel,” a specific command used in the HUMAN PLUS tape series, and which prepares the listener to learn new cognitive tasks. For the first time, I witnessed a nonmeditator achieving whole-brain synchrony without the use of a tape or the Hemi-Sync frequencies. This was most important. It suggested that perhaps, after exposure to the signal for a period of time, the subject may be capable of reentering a variety of states of consciousness without the use of any external cues or technologies.

During this past year, I have conducted a number of new studies with Hemi-Sync. I was especially interested in documenting subjects’ abilities to summon the effects of Hemi-Sync without listening to tapes.

The most significant and impressive studies conducted in our laboratory were those in which the subject was listening to Focus 12 tapes. As mentioned, shortly after listening to these tapes the subject’s brain-wave activity showed signs of synchrony in the beta range. To discover if he could enter the same state without the aid of the tapes, a more complex single subject design (ABAB’A) was used. I combined three baseline phases (A) with two treatment conditions (B and B’). During the initial baseline, the subject’s EEG was recorded. The subject was then asked to meditate using his own technique. A second baseline was established; then the subject was asked to count from one to twelve and stay in Focus 12 (B’). A final baseline was established after this phase was completed. The subject’s baseline recordings showed asynchronous activities across the cortex. During the meditation phase (B), an increase in high alpha and beta activities was noted. However, there were no signs of hemispheric synchronization. Shortly after the subject entered the second treatment phase (B’), that is, self-induced Focus 12, there were clear indications of whole-brain synchrony.

Therefore, at this stage, one may suggest the tentative hypothesis that it is possible to summon the beneficial and perhaps extraordinary effects of Hemi-Sync at will. To achieve this, one needs some exposure to the Hemi-Sync signal and perhaps needs to learn certain verbal cues.

In several other studies, using the HUMAN PLUS Access Channel command, it was established that subjects who had exposure to H-PLUS[®] tapes were able to synchronize their brains by merely counting from one to eleven and quietly saying the words: “Access Channel open.” Thus far, a total of four H-PLUS studies have been conducted. The first study showed full beta synchrony at Focus 11, the Access Channel. The second and third studies showed synchronous alpha activities, while the most recent study in this series showed synchronized theta across the cortex. Again it was objectively demonstrated that one need not become dependent on these tapes to benefit from them.

Hemi-Sync and Autogenic Training

A research and/or clinical tool, no matter how impressive, has limited value unless it can be integrated and combined with other tools and techniques. Can Hemi-Sync meet this criterion?

Autogenic training (AT) is one of the oldest Western approaches to psychophysiological reconditioning and is considered one of the most effective relaxation techniques, with a sound and well-established theory. The term “autogenic” is derived from Latin *autos* (from within) and *genos* (generated and developed). AT helps bring about positive and therapeutic changes that are generated from within. Hundreds of published studies have investigated the effectiveness of this technique in treating a variety of psychosomatic and stress-related disorders.

Studies of the effects of AT on cortical activity have shown that after prolonged practice (a minimum of six months) there is a tendency toward hemispheric synchronization, similar to that seen in experienced meditators. During the past several years, I have modified and expanded the standard autogenic exercises for our clinical purposes at The Gateway Institute. Last year, I began studying the combined effects of AT and Hemi-Sync by adding some theta to the background of these tapes. Two patients who had listened to these tapes for approximately six weeks underwent EEG testing. Again a simple ABA reversal design was used for these studies. During the baseline phase (A) subjects were asked to simply rest in a recliner. They were then asked to repeat two autogenic phrases for approximately one minute. A final post-treatment baseline was established after this phase. In both cases, subjects' EEG activities moved from asynchrony to full synchrony. One subject's EEG showed synchrony in theta, while the other showed synchrony in alpha. Again it was documented that after exposure to Hemi-Sync one can induce synchrony at will once certain verbal associations and cues are established (i.e., autogenic phrases).

Conclusions

The phenomenon of hemispheric synchronization has been attracting the attention of researchers and clinicians for some time. Of various technologies and procedures which purport to induce bilateral synchrony, Hemi-Sync appears to be the most effective approach, as well as being one of the safest, accomplishing what it claims to do. However, many questions concerning Hemi-Sync remain unanswered. Without a doubt, only well-designed research studies will assist us in unveiling the mysteries of Hemi-Sync.

Hemi-Sync® is a registered trademark of Interstate Industries, Inc.

© 1991 The Monroe Institute